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20915	7590	05/17/2005	EXAMINER PATEL, MITAL B	
MCGARRY BAIR PC 171 MONROE AVENUE, N.W. SUITE 600 GRAND RAPIDS, MI 49503			ART UNIT 3743	PAPER NUMBER

DATE MAILED: 05/17/2005

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/604,497  
Filing Date: July 25, 2003  
Appellant(s): CAPON ET AL.

MAILED  
MAY 17 2005  
Group 3700

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Mr. John E. McGarry  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 3/3/05.

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**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Claimed Subject Matter***

The summary of claimed subject matter contained in the brief is correct.

**(6) *Grounds of Rejection to be Reviewed on Appeal***

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) *Claims Appendix***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) *Evidence Relied Upon***

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

***Prior Art of Record***

3,142,549	Klusewitz et al	7-1964
5,158,077	Sundstrom	10-1992
5,660,173	Newton	8-1997

It should be noted that the Evidence supplied by the Appellant was submitted on 12/6/04 which was after the mailing date of the Final Rejection which was on 10/4/04 but before the filing date of the Notice of Appeal which was on 1/4/05.

***(10) Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

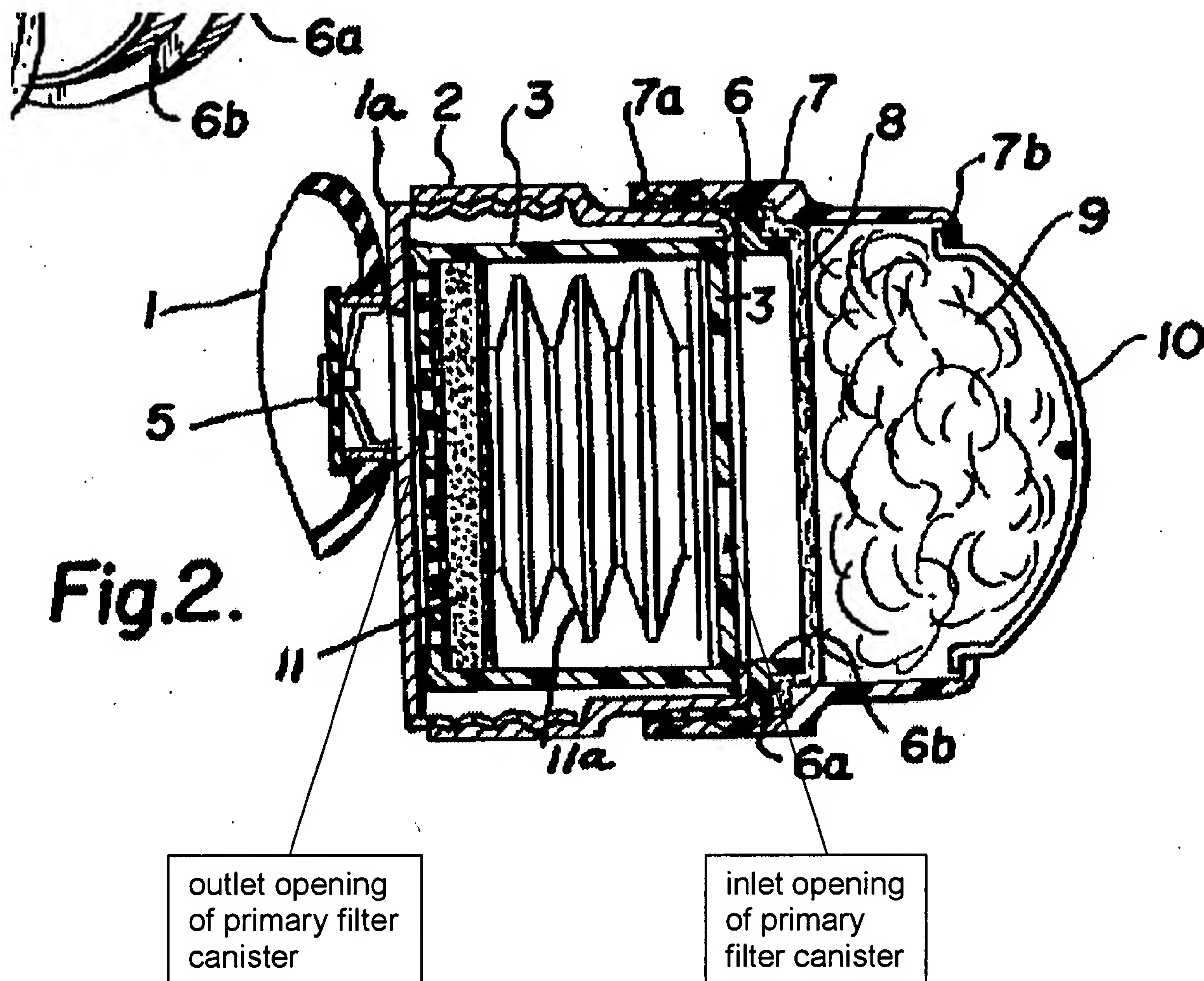
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 7, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Klusewitz et al (US 3,142,549).

3. **As to claim 1**, Klusewitz et al teach a filter canister assembly (**See Fig. 2**) for a gas mask 1 comprising: a primary filter canister 2,3 with an inlet opening at a first end (**See Fig. 2 attachment below**) and an outlet at a second end (**See Fig. 2 attachment below**); a first filter medium 11a adapted to remove aerosols, particulate materials and droplets from air and mounted in the primary filter canister in communication with the

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primary filter canister inlet opening; a second filter medium **11** adapted to remove toxic gases and arranged in serial communication with the first filter medium in the primary filter canister and with the outlet opening in the first filter housing, whereby the first filter and second filter media are capable of filtering out contaminants in normal hostile environments; and a supplementary filter canister **7** having an inlet opening (**that formed at 7b**) at a first end **7b** and an outlet opening (**that formed at 7a**) at a second end **7a**, the supplementary filter canister second end is removably (**See Figs. 1-2**) mounted to the primary filter canister first end so that the primary filter canister inlet opening is in communication with the supplementary filter canister outlet opening; and a third filter media **8,9** adapted to filter toxic industrial materials and mounted in said supplementary filter canister in communication with the inlet and outlet openings in the second filter canister.



4. As to claim 7, Klusewitz et al teach a filter canister assembly wherein the third filter medium is a particulate filter and an adsorbent filter (See Col. 2, lines 54-60 and Col. 3, lines 45-51, which disclose filter 9 to be made of cotton or paper which can serve as particulate filter and an adsorbent filter).

5. As to claim 9, Klusewitz et al teach a filter canister assembly wherein the second filter medium 11 comprises an adsorbent carbon filter medium (See Col. 3, lines 11-12).

6. As to claim 11, Klusewitz et al teach a filter canister assembly wherein the

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composition and amount of the third filter medium 8,9 is adapted to boost the capability of the first and second filter media to filter TIMs from contaminated air (**See Col 3, lines 18-25 and Col. 3, lines 37-44 which disclose that filter medium 8,9 absorb the majority of the material to be filtered, therefore implying that the capability of the first and second filter media to filter out material is increased or boosted**).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klusewitz et al (US 3,142,549) in view of Sundstrom (US 5,158,077).

11. **As to claim 8**, Klusewitz et al teach essentially all of the limitations except for wherein the first filter medium comprises a pleated paper. Klusewitz et al disclose that the first filter medium **11a** is a bellows filter or may be any other suitable filter unit. However, the use of a particular type of filter depends on the intended use, i.e., what type of material is desired to be filtered out. Sundstrom teaches a filter medium that comprises a pleated paper for filtering particles. Since Klusewitz et al disclose that any other suitable filter unit may be used in lieu of that taught by Klusewitz et al, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the bellows filter of Klusewitz et al with the pleated paper filter of Sundstrom so that specifically particles may be filtered out. Furthermore, it would have been obvious to one of ordinary skill in the art that the use of a pleated paper filter would also allow for better air ventilation between the various filter media.

12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klusewitz et al (US 3,142,549) in view of Newton (US 5,660,173).

13. **As to claim 10**, Klusewitz et al teach essentially all of the limitations except for wherein the second filter medium further includes metallic salts that interact with contaminant gases. Newton does teach the use of metallic salts in order to broaden the



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scope of chemical filtration by including both physical adsorption and chemical interaction with the impregnants to remove those chemicals that are poorly adsorbed and retained by physical adsorption alone. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include metallic salts in the second filter medium of Klusewitz et al as taught by Newton in order to increase the adsorption characteristic of the filter media so that those chemicals which are poorly adsorbed maybe easily adsorbed without the salts may readily be adsorbed with the addition of the metallic salts.

14. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klusewitz et al (US 3,142,549)

15. **As to claims 12 and 13**, Klusewitz et al teach essentially all of the limitations except for wherein at least one of the primary and supplementary filter canisters has an elliptical shape or wherein both of the primary and supplementary filter canisters have an elliptical shape. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to make the canisters of Klusewitz et al of an elliptical shape because Applicant has not disclosed that canisters being elliptical in shape provides an advantage, is used for a particular purpose, solves a stated problem, or provides an unexpected result. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the canisters of Klusewitz et al because the function of the canister to house the filter media is not altered by the shape of the canister. Therefore, it would

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have been an obvious matter of design choice to modify Klusewitz et al to obtain the invention as specified in claims 12 and 13 above.

**(11) Response to Argument**

16. In response to Appellant's arguments regarding the rejection of claims 1, 8, 9, 10, 11, 12, and 13 with respect to the filter media **8 and 9** of Klusewitz et al not being adapted to filter Toxic Industrial Materials (TIMs), the Examiner would like to direct Appellant's attention to item 1 listed under the Evidence Appendix, i.e., the Declaration Under 37 C.F.R. 1.132 of David Pike, specifically page 5, paragraph 11 of the declaration, which states "Although TIMs include some particulate materials that may be removed by the Klusewitz et al. '549 prefilter...." Therefore, Appellant admits that Klusewitz et al is adapted to filter out some TIMs and renders Appellant's arguments moot with respect to the filter of Klusewitz et al. not being adapted to filter Toxic Industrial Materials. Furthermore, it should be noted that according to the National Institute of Justice Guide sent in by Applicant, a TIM is defined as a chemical other than a chemical warfare agent that may have harmful effects on humans... and are used in a variety of settings such as manufacturing facilities, maintenance areas, and general storage areas. Additionally, TIMS may be of high hazard, medium hazard, and low hazard. As such, Klusewitz discloses a filter for use in filtering particulate matter and fumes from paint spraying operation, which fumes would constitute a TIM based on some of the criteria set forth by the National Institute of Justice Guide.

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17. In response to Appellant's arguments regarding the rejection of claim 7 that Klusewitz et al. does not teach a filter that also includes an adsorbent filter, the Examiner directs Appellant's attention to Merriam-Webster's Collegiate Dictionary, 10<sup>th</sup> Edition, which defines adsorbent as "a usually solid substance that adsorbs another substance." Adsorb is defined as "to take up and hold by adsorption." Adsorption is defined as "the adhesion in an extremely thin layer of molecules (as of gases, solutes, or liquids) to the surfaces of solid bodies or liquids with which they are in contact." Appellant defines an adsorbent filter as one which filters gases. However, based on the dictionary definition, adsorbent is not limited to gases only. Furthermore, Appellant in the recitation has not limited the adsorbent filter to filter only gaseous components.

18. In response to Appellant's arguments with respect to claim 10 that Klusewitz et al respirators are intended to filter paint fumes and particulate droplets, it should be noted that Klusewitz et al does not limit the filtering capabilities to paint spray but also includes dust, mist, and fumes (**See Column 3, lines 37-41 and Column 4, lines 25-27**) and as such there is sufficient motivation to combine the references as set forth in the rejection. Furthermore, Appellant argues that "there is no reason why a paint spray booth respirator filter would be enhanced to absorb a wide variety of warfare gases." However, Appellant is reminded that the claim broadly recites contaminant gases and is not limited to warfare gases.

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19. In response to Appellant's arguments with respect to the elliptical shape of the canister, the Examiner has considered the arguments but the evidence was not persuasive, as the particular configuration of claimed filter was not found to be significant.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Mital B. Patel

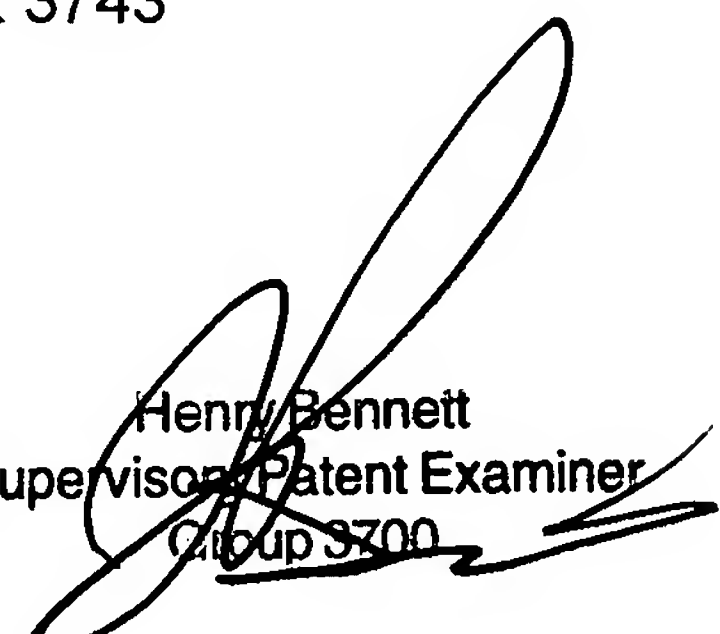
Examiner

Art Unit 3743

mbp

May 12, 2005

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